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POSITIONS, AREAS, AND COUNTS OF SUNSPOTS JANUARY-FEBRUARY-MARCH-APRIL, 1952

By Lucy T. Day

These results are based upon measurements made at the Naval Observatory on plates secured either there or at the Mt. Wilson Observatory. The symbols used for the entries in the successive columns are as follows:

U.T., the epoch of observation in Universal Time.
No., the identifying number of the group assigned by Mt. Wilson.
Δl, the heliographic difference in longitude from the central meridian, measured positive to the west.
φ, the heliographic latitude, measured positive to the north.
ρ, the heliocentric angular distance from the line joining the centers of the Earth and Sun.
A, the true area of the umbra plus penumbra, expressed in millionths of the visible hemisphere.
s, the number of spots.

An asterisk means that no Mt. Wilson number was assigned. Plates secured at the Naval Observatory are indicated by N, and those at Mt. Wilson by M. The plate quality, which follows, is indicated by:

1, Poor; 2, Fair; 3, Good; 4, Very Good; 5, Excellent.

The following five quantities are listed successively at the end of each day, and give for that day:

1. The total number of groups, g.
2. The longitude of the central meridian, L_0.
3. The latitude of the center of the disc, B_0.
4. The total value of A.
5. The total value of s.

The mean daily area and the mean relative sunspot number, $r=10g+s$ are given at the end of the month.

These results are a continuation of those published in the *Monthly Weather Review* from February 1, 1927 to December 31, 1947.

JANUARY

U.T.	No.	Δl	φ	ρ	A	s
		°	°	°		
1.762	10860	−61	+ 6	62	36	1
N–2	10859	−54	−21	56	48	1
	10859	−48	−19	50	48	4
	10858	− 3	− 7	6	48	2
	10858	+ 2	− 7	4	97	4
	10857	+ 3	+15	18	61	2
	10857	+ 7	+14	18	24	1
	10857	+11	+14	21	48	4
	10856	+18	+ 3	20	24	6
	10856	+20	+ 2	21	36	2
	10856	+23	+ 3	23	24	2
	10856	+26	+ 1	26	48	1
	10856	+27	+ 1	27	242	1
	(5)	(279)	(−3)		784	31
2.738	10860	−48	+ 7	50	36	1
M–2	10859	−41	−21	43	48	3
	10861	+ 3	− 9	6	16	3
	10858	+15	− 7	16	24	2
	10857	+16	+14	23	97	4
	10856	+35	+ 2	35	24	3
	10856	+38	+ 1	38	36	1
	10856	+39	+ 1	39	194	1
	(6)	(266)	(−3)		475	18
3.699	10861	+15	−13	18	24	5
N–3	10861	+18	− 8	18	73	10
	10857	+28	+15	34	36	1
	10857	+31	+15	37	48	1
	10856	+47	+ 3	47	48	4
	10856	+50	+ 2	50	206	1
	(3)	(254)	(−3)		435	22
4.649	10861	+29	− 8	30	36	1
M–3	10861	+31	− 9	32	16	1
	10861	+33	− 8	33	12	4
	10856	+64	+ 1	64	206	1
	(2)	(241)	(−3)		270	7
5.754	10856	+78	+ 1	78	194	1
N–2						
	(1)	(227)	(−3)		194	1
6.689	10862	+26	−19	30	24	1
N–2	10862	+28	−19	32	48	3
	(1)	(214)	(−4)		72	4
7.640	10862	+38	−17	40	61	3
N–3	10862	+39	−19	41	97	2
	10862	+41	−18	43	73	4
	(1)	(202)	(−4)		231	9
8.721	10865	−72	+13	74	242	1
M–2	10864	+18	+11	24	24	7
	10864	+19	+ 9	22	36	4
	10864	+21	+10	25	24	7
	(2)	(188)	(−4)		326	19
9.674	10866	−79	+ 8	79	194	4
M–2	10866	−74	+ 8	76	485	1
	10865	−61	+12	63	48	5
	10865	−59	+13	61	291	1
	10864	+31	+12	35	24	4
	10864	+32	+ 9	34	12	2
	10864	+34	+10	35	61	4
	(*)	+46	−12	47	12	2
	(4)	(175)	(−4)		1127	23
10.803	10866	−75	+ 7	77	24	1
N–3	10866	−65	+ 7	67	48	4
	10866	−61	+ 7	62	97	1
	10866	−59	+ 7	60	630	1
	10866	−55	+ 8	56	6	1
	10865	−46	+12	48	6	1
	10865	−45	+12	47	291	1
	10868	−22	+12	27	36	3
	10864	+48	+11	51	36	1
	10867	+64	− 2	64	97	1
	10867	+68	− 1	68	48	1
	(5)	(160)	(−4)		1319	16
11.683	10866	−65	+ 7	66	12	3
N–3	10866	−60	+ 7	61	24	1
	10866	−50	+ 6	51	48	4
	10866	−48	+ 6	50	16	2
	10866	−46	+ 7	47	630	1
	10866	−41	+ 6	43	6	1
	10865	−31	+12	34	291	1
	10864	+60	+11	62	24	1
	10867	+78	− 2	78	36	2
	(4)	(149)	(−4)		1087	16
13.685	10866	−27	+ 9	30	24	3
N–2	10866	−26	+ 6	27	36	2
	10866	−24	+ 8	27	24	3
	10866	−21	+ 6	23	145	9
	10866	−19	+ 6	22	582	1
	10865	− 6	+13	18	194	1
	10865	− 5	+12	17	73	4
	(2)	(122)	(−4)		1078	23
14.667	10870	−68	+ 3	68	145	3
N–3	10870	−65	+ 2	65	24	4
	10870	−61	+ 2	61	97	3
	10866	−12	+ 6	16	24	4
	10866	−10	+10	17	36	3
	10866	− 7	+ 6	12	121	9
	10866	− 5	+ 6	11	582	1
	10865	+ 8	+13	19	97	1
	10865	+ 9	+11	18	73	4

JANUARY

U.T.	No.	Δl	φ	ρ	A	s
		°	°	°		
	10869	+32	+ 9	33	36	1
	10869	+34	+ 8	35	48	5
	(4)	(109)	(−4)		1283	38
15.732	10870	−54	+ 3	55	206	1
N−3	10870	−48	+ 4	49	145	14
	10866	+ 1	+ 5	10	12	2
	10866	+ 5	+ 9	15	36	3
	10866	+ 7	+ 6	13	73	6
	10866	+ 9	+ 6	14	461	1
	10865	+20	+12	26	12	1
	10865	+22	+11	27	48	1
	10865	+23	+11	28	73	5
	10869	+46	+ 8	48	48	7
	10869	+49	+ 7	51	97	1
	(4)	(95)	(−5)		1211	42
16.647	10870	−41	+ 3	42	194	1
N−2	10870	−35	+ 3	36	12	6
	10870	−31	+ 4	33	61	1
	10866	+19	+ 6	22	48	4
	10866	+21	+ 6	23	436	1
	(*)	+22	+15	29	12	1
	10865	+33	+12	38	48	1
	10865	+36	+11	40	73	2
	10869	+57	+ 8	58	6	1
	10869	+62	+ 7	62	48	1
	(5)	(83)	(−5)		938	19
18.688	10870	−15	+ 2	16	24	3
N−3	10870	−14	+ 4	17	48	7
	10870	−11	+ 4	14	12	10
	10870	− 7	+ 4	12	73	6
	10870	− 4	+ 5	11	61	1
	10866	+44	+11	46	6	1
	10866	+47	+ 7	49	6	2
	10866	+49	+ 6	51	339	1
	10865	+49	+15	52	36	1
	10865	+51	+15	54	12	1
	(3)	(56)	(−5)		617	33
19.746	10870	+ 2	+ 2	7	48	4
M−1	10870	+10	+ 3	12	97	2
	10866	+62	+ 6	64	339	1
	10865	+70	+13	72	36	2
	(3)	(42)	(−5)		520	9
20.726	10870	+17	+ 3	20	73	6
N−3	10870	+21	+ 3	24	97	8
	10870	+24	+ 6	24	12	1
	10871	+66	−11	68	6	1
	10871	+70	−12	71	6	1
	10866	+76	+ 7	76	291	1
	(3)	(29)	(−5)		485	18
21.695	10870	+29	+ 2	30	36	6
N−3	10870	+29	+ 4	31	73	3
	10870	+36	+ 4	37	109	2
	(1)	(17)	(−5)		218	11
23.681	10872	−70	−10	71	48	3
N−3	10872	−68	−10	69	145	2
	10870	+61	+ 4	62	48	1
	(2)	(351)	(−5)		241	6
24.674	10872	−57	−10	57	145	8
N−3	10872	−54	−10	55	170	1
	10872	−52	− 9	53	145	1
	10870	+75	+ 4	75	97	1
	(2)	(337)	(−5)		557	11
25.672	10872	−43	−10	43	170	2
N−3	10872	−40	−12	41	73	9
	10872	−38	−10	38	194	3
	(1)	(324)	(−5)		437	14
26.758	10872	−29	−10	29	121	7
M−2	10872	−25	−11	25	24	1
	10872	−24	−10	24	145	2
	10873	−29	+ 8	33	12	2
	(2)	(310)	(−6)		302	12
27.826	10872	−15	−10	16	97	4
M−2	10872	−14	−11	15	73	6
	10872	−10	−10	11	121	2
	(1)	(296)	(−6)		291	12
29.650	(*)	−35	+ 2	37	12	1
N−3	10872	+12	−10	13	48	6
	10872	+15	−11	16	85	3
	(2)	(272)	(−6)		145	10
30.706	10874	−67	+13	71	12	3
N−3	10874	−67	+10	70	48	1
	10872	+27	−11	27	12	1
	10872	+28	−10	28	73	1
	(2)	(258)	(−6)		145	6
31.716	10874	−53	13	57	12	1
N−3	10872	+41	−10	41	12	1
	10872	+42	−10	42	73	1
	(2)	(245)	(−6)		97	3

Mean for 27 days
A=551, r=43.1

FEBRUARY

U.T.	No.	Δl	φ	ρ	A	s
		°	°	°		
1.644	10874	−40	+13	45	12	6
N−3	10875	−18	+12	26	12	1
	10872	+54	−10	54	48	1
	(3)	(233)	(−6)		72	8
2.719	10872	+67	−10	67	48	1
N−1						
	(1)	(218)	(−6)		48	1
3.739	10876	+23	−18	26	24	2
M−1	10872	+80	−10	80	36	1
	(2)	(205)	(−6)		60	3
4.742	10878	−41	−22	43	61	4
M−1	10877	+ 2	−10	4	12	3
	10876	+36	−17	37	12	1
	(3)	(192)	(−6)		85	8
5.676	10880	−73	+10	77	48	1
M−3	10878	−32	−22	34	48	7
	10878	−27	−22	31	97	6
	10879	− 7	− 1	10	36	5
	10879	− 5	+ 1	9	48	4
	(3)	(179)	(−6)		277	23
6.666	10878	−19	−23	24	36	1
N−3	10878	−18	−22	23	24	6
	10878	−15	−25	24	73	1
	10879	+ 3	− 2	6	61	1
	10879	+ 6	− 1	8	73	9
	10881	+ 7	− 3	9	24	2
	10881	+ 7	− 5	8	48	1
	10881	+ 9	− 4	10	6	1
	(3)	(166)	(−6)		345	22
7.649	10878	− 7	−23	19	36	3
N−3	10878	− 1	−23	17	61	2
	10881	+17	− 2	18	61	1
	10881	+21	− 2	22	73	7
	10879	+21	+ 1	23	24	2
	(3)	(153)	(−6)		255	15
8.641	10878	+12	−23	21	48	1
N−2	10881	+31	− 2	32	24	1
	10881	+33	− 2	34	6	1
	(2)	(140)	(−6)		78	3
9.665	10882	+21	− 2	22	24	1
N−2	10882	+23	− 3	24	24	1
	10882	+25	+ 1	26	36	3
	10878	+26	−23	30	73	3
	10881	+45	− 1	46	16	1
	10881	+47	+ 1	48	16	1
	(3)	(127)	(−7)		189	10
10.748	10882	+35	− 3	35	16	4
M−2	10878	+39	−24	41	24	6
	10878	+41	−24	43	24	1
	10879	+61	− 1	61	16	1
	(3)	(113)	(−7)		80	12
11.693					0	0
N−3						
	(0)				0	0
12.647	10883	−79	−11	79	388	2
N−3	10883	−76	−10	76	121	1
	10883	−76	−11	76	97	1
	(1)	(88)	(−7)		606	4
13.650	10884	−73	+18	77	24	1
N−3	10883	−72	−10	73	194	1
	10883	−70	−12	71	194	1
	10883	−67	−11	67	533	4
	10883	−65	−13	65	12	1
	10883	−63	−11	63	145	2
	(2)	(74)	(−7)		1102	10
14.769	10884	−59	+17	63	170	1
N−2	10883	−58	−11	58	194	1
	10883	−56	−13	56	145	1
	10883	−50	−11	50	194	1
	10883	−49	−13	49	388	1
	10883	−47	−12	47	97	1
	(2)	(61)	(−7)		1188	6
15.674	10884	−48	+18	54	109	7
M−4	10884	−47	+17	52	48	2
	10883	−45	−10	45	73	4
	10883	−43	−12	43	97	9
	10883	−41	− 9	41	12	1
	10883	−39	−10	39	218	1
	10883	−37	−13	37	315	1
	10883	−34	−12	34	145	13
	(2)	(48)	(−7)		1017	38
16.694	10884	−36	+17	44	97	2
M−2	10884	−35	+18	43	73	2
	10883	−32	−11	32	73	2
	10883	−31	−13	31	48	3
	10883	−29	−11	29	170	6
	10883	−23	−10	23	97	6
	10883	−23	−13	24	291	1
	10883	−22	−11	22	145	5
	(2)	(34)	(−7)		994	27
18.644	10885	−43	−15	43	12	1
N−3	10885	−40	−15	40	12	1
	10884	−10	+17	27	6	1
	10884	− 9	+19	28	73	1
	10883	− 3	−12	6	36	4
	10883	− 1	−11	4	48	1
	10883	0	−10	3	121	7
	10883	+ 2	− 9	2	36	1
	10883	+ 3	−12	5	291	1
	10883	+ 5	−10	5	109	2
	(*)	+11	+ 8	19	6	1
	(4)	(9)	(−7)		750	21
19.642	10885	−30	−15	31	12	2
N−4	10885	−27	−14	28	12	6

FEBRUARY MARCH

U.T.	No.	Δl	φ	ρ	A	s
		°	°	°		
	(*)	−10	−25	21	24	3
	10884	+ 4	+20	28	73	1
	10883	+ 9	−10	9	16	5
	10883	+ 9	−12	11	12	1
	10883	+12	−12	13	145	17
	10883	+12	− 8	12	12	6
	10883	+17	−12	18	339	11
	(4)	(355)	(−7)		645	52
20.689	10884	+18	+21	34	61	1
N−2	10883	+23	−12	24	48	3
	10883	+25	−10	25	48	1
	10883	+25	−13	26	61	2
	10883	+29	−11	29	36	1
	10883	+30	−10	30	291	1
	(2)	(342)	(−7)		545	9
21.647	10884	+31	+21	42	61	1
N−2	10883	+39	−13	39	12	5
	10883	+40	−10	40	24	4
	10883	+43	−11	43	291	1
	(2)	(329)	(−7)		388	11
22.640	10884	+43	+21	51	97	1
N−2	10884	+45	+21	52	12	5
	10883	+56	−11	56	291	1
	(2)	(316)	(−7)		400	7
23.635	10884	+56	+21	61	97	1
N−2	10883	+70	−11	71	291	1
	(2)	(303)	(−7)		388	2
24.736	10884	+70	+21	73	97	1
M−1	10883	+83	−11	83	291	1
	(2)	(288)	(−7)		388	2
25.645	(*)	−70	+12	72	12	1
N−3	(*)	−68	+13	70	12	1
	(1)	(276)	(−7)		24	2
26.653					0	0
N−2						
	(0)				0	0
27.651					0	0
N−3						
	(0)				0	0
28.647					0	0
N−3						
	(0)				0	0
29.635					0	0
N−3						
	(0)				0	0

Mean for 28 days
A=354, r=29.9

U.T.	No.	Δl	φ	ρ	A	s
		°	°	°		
1.744					0	0
N−2						
	(0)				0	0
5.643	10886	−78	+13	78	97	1
N−3						
	(1)	(158)	(−7)		97	1
6.656	10886	−63	+12	66	145	3
N−2						
	(1)	(145)	(−7)		145	3
10.645	10889	−82	−15	82	97	1
N−1	10888	−74	−11	75	194	1
	10886	−10	+12	22	36	1
	(3)	(92)	(−7)		327	3
11.660	10889	−69	−15	70	170	1
N−3	10888	−60	−11	60	145	1
	10888	−58	−13	58	12	1
	(*)	+40	−22	42	24	1
	(3)	(79)	(−7)		351	4
12.645	10889	−55	−15	55	121	1
N−3	10888	−53	−13	53	24	2
	10888	−51	−11	51	12	4
	10888	−47	−11	47	73	5
	10890	+13	+13	23	48	2
	(3)	(66)	(−7)		278	14
14.649	10889	−29	−13	30	109	1
N−3	10888	−28	−12	28	48	2
	10888	−23	−10	23	48	4
	10888	−18	− 9	18	36	5
	(2)	(39)	(−7)		241	12
15.628	10889	−17	−11	17	73	1
N−1						
	(1)	(26)	(−7)		73	1
17.653	(*)	−65	+11	66	12	4
N−3	10889	+11	−12	13	48	1
	(2)	(0)	(−7)		60	5
18.658	10889	+25	−12	25	48	1
N−3						
	(1)	(346)	(−7)		48	1
19.783	10889	+39	−12	39	24	1
N−3						
	(1)	(332)	(−7)		24	1
20.660					0	0
N−2						
	(0)				0	0

MARCH

U.T.	No.	Δl	φ	ρ	A	s
		°	°	°		
21.648					0	0
N–2						
	(0)				0	0
22.661					0	0
N–2						
	(0)				0	0
23.663	(*)	− 5	−10	6	12	1
M–2						
	(1)	(280)	(−7)		12	1
24.677	10892	−84	− 3	84	145	1
M–2	10891	−29	− 7	29	16	1
	10891	−27	− 6	27	12	1
	10891	−26	− 6	26	12	1
	10891	−25	− 5	25	24	1
	(2)	(267)	(−7)		209	5
25.660	10892	−72	− 1	72	12	1
N–2	10892	−71	− 3	71	194	1
	10891	−18	−10	18	24	1
	10891	−17	− 7	17	12	1
	10891	−14	− 7	14	24	2
	10891	−11	− 7	11	48	2
	(2)	(254)	(−7)		314	8
26.651	10892	−59	− 2	59	36	1
N–3	10892	−58	− 1	58	48	1
	10892	−57	− 3	57	97	1
	10892	−55	− 2	55	24	1
	10891	− 3	− 9	3	48	3
	10891	− 1	− 7	1	48	1
	10891	0	− 8	1	12	1
	10891	+ 3	− 6	3	73	5
	(2)	(241)	(−7)		386	14
27.645	10892	−45	− 1	46	61	1
N–3	10892	−43	− 2	44	121	3
	10894	−39	−16	40	16	3
	10894	−39	−18	40	48	4
	10891	+11	− 8	11	109	6
	10891	+12	− 9	12	61	5
	10891	+17	− 7	17	48	4
	10893	+24	+ 8	29	24	1
	10893	+26	+ 8	32	36	4
	(4)	(228)	(−7)		524	31

U.T.	No.	Δl	φ	ρ	A	s
		°	°	°		
28.650	10892	−30	− 2	31	97	3
N–3	10894	−26	−19	27	36	2
	10894	−25	−18	26	12	6
	10894	−24	−19	26	36	1
	10895	+12	− 3	12	48	1
	10891	+25	− 8	25	145	3
	10891	+29	− 8	29	121	4
	10891	+31	− 7	31	48	3
	10893	+35	+ 8	38	24	1
	10893	+40	+ 8	43	48	4
	(5)	(215)	(−7)		615	28
29.725	10892	−18	− 3	19	97	9
M–2	10894	−12	−19	17	24	2
	10894	− 9	−19	15	48	1
	10896	+12	− 9	12	16	1
	10895	+24	− 3	25	12	4
	10895	+27	− 4	27	48	1
	10891	+38	− 7	38	48	1
	10891	+38	− 9	38	48	1
	10891	+39	− 7	39	61	4
	10891	+41	− 7	41	24	2
	10891	+43	− 8	43	145	18
	10893	+55	+10	58	48	1
	(6)	(200)	(−7)		619	45
30.759	10897	−23	− 7	23	6	1
M–2	10892	− 5	− 3	6	48	12
	10892	− 3	− 4	4	97	2
	10892	− 1	− 4	3	24	6
	10894	+ 5	−19	13	24	5
	10896	+25	−10	25	6	1
	10896	+28	−10	28	12	1
	10895	+38	− 3	39	24	6
	10895	+43	− 5	43	16	1
	10891	+51	−10	51	73	4
	10891	+53	− 7	53	97	8
	10891	+55	− 5	55	24	1
	10891	+59	− 8	59	121	6
	10893	+69	+ 7	70	12	1
	(7)	(187)	(−7)		584	55
31.641	10892	+10	− 2	12	61	6
N–2	10892	+11	− 4	12	109	2
	10892	+13	− 4	13	24	3
	10895	+56	− 3	56	48	2
	10895	+58	− 5	58	12	1
	10891	+65	− 7	65	24	2
	10891	+69	− 5	69	16	2
	10891	+70	− 8	70	61	4
	(3)	(175)	(−7)		355	22

Mean for 23 days, $A=229$, $r=32.8$

APRIL

U.T.	No.	Δl	φ	ρ	A	s
		°	°	°		
1.758	(*)	0	+ 5	12	12	8
N–3	10892	+21	– 3	22	48	9
	10892	+23	– 4	24	97	3
	10892	+25	– 3	26	109	15
	(2)	(160)	(–7)		266	35
2.690	10892	+37	– 4	38	73	1
N–3	10892	+38	– 3	39	97	8
	(1)	(148)	(–6)		170	9
3.648	10898	–68	+ 6	70	48	1
N–3	10898	–64	+ 5	66	48	1
	10892	+50	– 2	51	73	7
	10892	+51	– 3	52	61	1
	(2)	(136)	(–6)		230	10
4.645	10898	–55	+ 6	57	121	2
N–2	10898	–53	+ 5	55	61	3
	10898	–51	+ 3	53	121	4
	10898	–49	+ 4	51	24	1
	10892	+65	– 3	65	61	3
	(2)	(122)	(–6)		388	13
5.701	10898	–41	+ 6	43	170	7
N–3	10898	–40	+ 5	42	48	3
	10898	–38	+ 6	41	24	8
	10898	–37	+ 5	40	145	5
	10898	–36	+ 6	38	97	10
	(1)	(108)	(–6)		484	33
6.801	10898	–27	+ 6	31	194	1
N–3	10898	–27	+ 4	30	12	1
	10898	–25	+ 6	28	61	1
	10898	–25	+ 4	27	97	8
	10898	–23	+ 4	26	12	3
	10898	–20	+ 5	23	97	10
	(1)	(94)	(–6)		473	24
7.656	10898	–15	+ 6	20	194	1
N–2	10898	–13	+ 5	18	145	10
	10898	–11	+ 7	17	61	2
	10898	–11	+10	19	12	1
	10898	– 8	+ 4	14	97	6
	10899	+27	+ 3	30	24	4
	(2)	(83)	(–6)		533	24
8.652	10898	– 2	+ 6	13	206	1
N–2	10898	+ 1	+ 6	12	73	1
	10898	+ 1	+ 4	10	61	2
	10898	+ 3	+ 6	13	48	2
	10898	+ 3	+ 4	11	73	2
	10899	+38	+ 2	40	24	1
	10899	+41	+ 3	43	24	1
	(2)	(70)	(–6)		509	10
9.652	10898	+11	+ 6	17	218	1
N–2	10898	+16	+ 4	20	73	5
	10898	+17	+ 6	22	36	1
	10899	+57	+ 3	58	121	3
	(2)	(56)	(–6)		448	10
10.651	10898	+24	+ 6	27	218	1
N–3	10898	+30	+ 6	32	48	7
	10898	+31	+ 4	33	97	12
	10899	+65	+ 3	67	97	6
	10899	+71	+ 3	73	97	7
	(2)	(43)	(–6)		557	33
11.649	10902	– 3	+18	25	6	1
N–3	10902	– 1	+18	24	6	1
	10898	+38	+ 6	42	267	1
	10898	+38	+ 4	41	48	2
	10898	+40	+ 4	42	73	7
	10898	+43	+ 6	45	97	15
	10898	+45	+ 4	46	36	4
	10901	+75	+18	78	121	4
	10899	+80	+ 3	80	24	4
	(4)	(30)	(–6)		678	39
12.789	10898	+53	+ 6	56	218	1
M–2	10898	+55	+ 5	37	97	5
	10898	+59	+ 6	61	242	3
	(1)	(15)	(–6)		557	9
13.707	10903	–47	–12	47	6	1
M–4	10903	–45	–12	45	12	1
	(*)	+13	+ 4	17	12	4
	10898	+65	+ 6	67	218	1
	10898	+67	+ 5	70	145	10
	10898	+69	+ 7	71	48	4
	10898	+70	+ 5	72	436	10
	(3)	(3)	(–6)		877	31
14.667	10898	+78	+ 5	80	291	1
N–3	10898	+82	+ 4	82	145	5
	(1)	(350)	(–6)		436	6
15.660	10904	+42	+10	46	16	2
N–3						
	(1)	(337)	(–6)		16	2
16.585	10905	+48	+12	51	16	2
M–2	10905	+48	+14	52	12	1

APRIL

U.T.	No.	Δl	φ	ρ	A	s
		°	°	°		
	(1)	(325)	(−5)		28	3
17.670	10906	−14	− 9	14	12	1
N−3						
	(1)	(310)	(−5)		12	1
18.653	10907	−27	+ 6	30	12	4
N−3	10906	− 4	− 8	5	48	4
	10906	− 3	− 7	4	36	1
	10906	− 1	−10	5	36	7
	10906	+ 2	− 9	4	97	1
	(2)	(297)	(−5)		229	17
19.672	10907	−14	+ 9	20	24	8
N−3	10907	−11	+ 9	18	16	3
	10906	+11	− 7	11	48	10
	10906	+12	− 9	12	85	2
	10906	+13	− 8	14	24	1
	10906	+13	−10	14	6	1
	10906	+14	− 8	15	32	1
	10906	+16	− 9	17	194	3
	(2)	(284)	(−5)		429	29
20.722	(*)	−76	+ 6	77	12	1
N−3	10908	−75	− 5	75	6	2
	10907	+ 1	+ 9	14	61	4
	10907	+ 3	+ 9	14	24	2
	10907	+ 6	+ 9	15	12	1
	10907	+ 7	+ 9	16	24	1
	10906	+26	− 7	26	61	3
	10906	+28	− 9	28	121	6
	10906	+30	− 9	30	97	2
	10906	+32	−10	32	218	1
	(4)	(270)	(−5)		636	23
21.644	10910	−78	+15	80	48	1
N−3	10910	−75	+16	77	145	1
	10908	−62	− 4	62	36	5
	10908	−57	− 4	57	6	1
	10909	−16	−13	17	12	3
	10907	+18	+ 9	23	12	6
	10907	+19	+ 9	24	24	2
	10906	+37	− 7	37	73	3
	10906	+38	− 9	38	97	1
	10906	+40	− 9	40	24	14
	10906	+43	− 9	43	436	1
	(5)	(258)	(−5)		913	38
22.678	10910	−63	+15	67	24	5
N−3	10910	−60	+17	63	170	1
	10909	− 2	−13	8	12	1
	10906	+50	− 7	50	97	2
	10906	+52	− 9	52	242	6
	10906	+55	−11	56	121	2
	10906	+58	− 9	58	485	2
	(3)	(244)	(−5)		1151	19
23.644	10910	−48	+15	52	12	1
N−4	10910	−46	+17	51	24	5
	10910	−45	+17	50	121	1
	10911	+46	+ 6	47	6	1
	10906	+62	− 7	62	61	2
	10906	+65	− 8	65	194	7
	10906	+69	− 9	69	485	1
	(3)	(232)	(−5)		903	18
24.614	10910	−35	+15	40	24	4
M−3	10910	−34	+14	38	73	1
	10910	−33	+16	39	16	2
	10913	+34	− 8	34	12	2
	10912	+37	−13	38	6	1
	10912	+40	−12	41	6	1
	10911	+55	+ 7	57	6	1
	10911	+57	+ 6	58	12	2
	10906	+79	− 8	79	121	1
	10906	+80	− 9	80	436	1
	(5)	(219)	(−5)		712	16
26.602	10910	− 8	+15	22	12	5
M−3	10910	− 5	+14	20	36	8
	10910	− 4	+14	19	97	1
	10910	− 3	+13	18	12	1
	(1)	(192)	(−5)		157	15
27.616	10910	+ 5	+15	20	48	1
M−2	10910	+ 8	+14	21	121	1
	(1)	(179)	(−4)		169	2
29.775	10916	−85	+ 4	85	97	1
N−3	10916	−73	+ 7	75	24	1
	10915	−68	+ 5	69	36	1
	(*)	+10	+12	18	24	4
	10910	+35	+17	40	12	6
	10910	+37	+16	42	61	1
	10914	+51	− 1	51	24	2
	10914	+53	− 3	53	12	1
	10914	+55	− 1	55	48	5
	(5)	(151)	(−4)		338	22
30.650	10916	−72	+ 5	73	73	1
N−4	10915	−55	+ 6	56	12	1
	10910	+49	+15	52	61	3
	10914	+62	− 1	62	24	1
	10914	+64	− 1	64	12	1
	10914	+68	− 2	68	109	1
	(4)	(139)	(−4)		291	8

Mean for 28 days, $A=450$, $r=40.7$